

HUMAN SPACE ENDEAVOURS SYMPOSIUM (B3)  
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A NOVEL MODEL FOR ISS RESEARCH THAT PROMOTES COLLABORATIVE APPROACHES TO  
SOLVING SPACE AND EARTH PROBLEMS**Abstract**

The International Space Station is a key platform for extending human reach into space. It is central to meeting the greatest challenges to human exploration: space radiation, variable gravity and operations and living in an isolated, confined, extreme environment. The health life sciences program (HLS) at the Canadian Space Agency is focused on characterizing and mitigating risks for human exploration through both science and technology. To meet this mandate, we will need to ensure the latest science and technology is applied to space and harness the know-how of non-traditional space academia and industry. Because much of what we learn in space is valuable for life on Earth, we can demonstrate to traditional interests outside the space community the importance of the ISS as a valuable platform to contribute to knowledge on Earth. In order to build synergy between terrestrial research and development and parallel RD in space, CSA has developed a research model that promotes collaboration between academia, industry and government to address challenges confronting astronauts and people on Earth. How our current missions and planned initiatives work within this model will be discussed along with possible applications of our space research to better life on Earth.